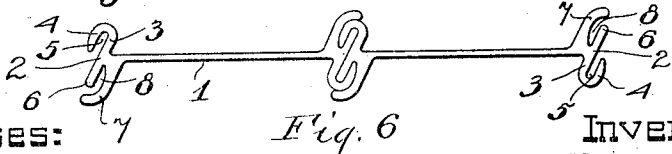
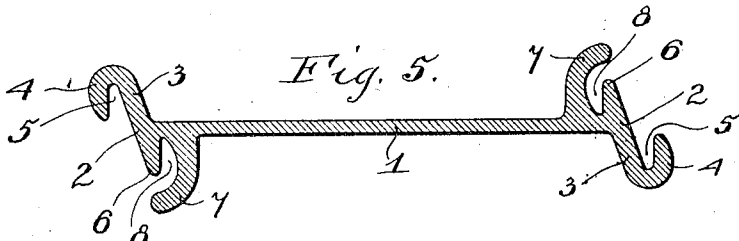
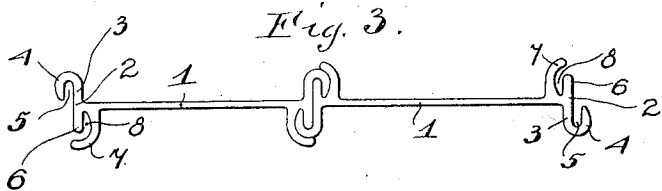
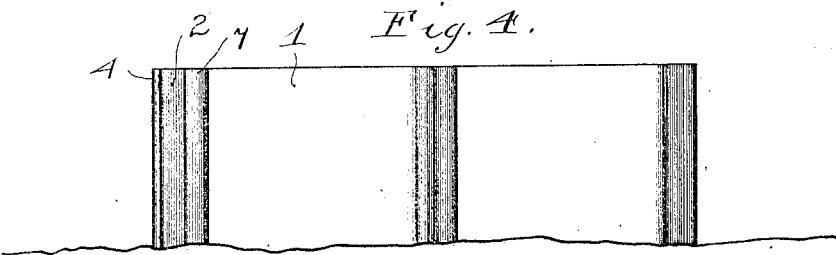
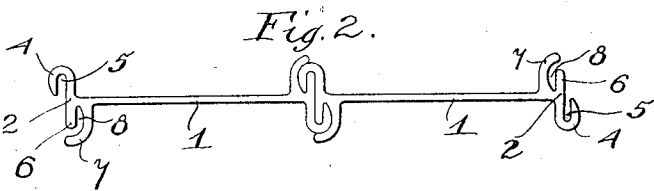
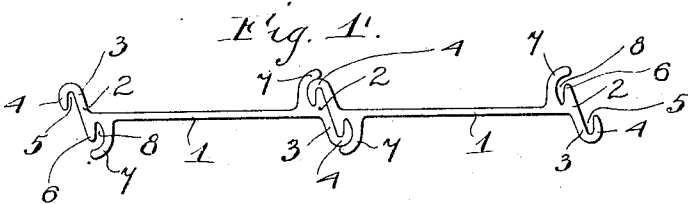


T. HILL.
SHEET PILING.

APPLICATION FILED APR. 24, 1905.



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UNITED STATES PATENT OFFICE.

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SHEET-PILING.

No. 831,665.

Specification of Letters Patent.

Patented Sept. 25, 1908.

Application filed April 24, 1905. Serial No. 257,167.

To all whom it may concern:

Be it known that I, TRUMAN HILL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Sheet-Piling, (Case No. 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to sheet-metal piling; and its object is the provision of an improved unit section or beam therefor in which the engaging and locking parts are constructed and arranged to more readily withstand the strains to which a built-up wall is subjected, particularly the longitudinal strains and the side or buckling strains.

The unit-section of my invention may be rolled integral and consists of a web portion having a transverse flange at each end, these flanges being parallel. One end of each flange is extended to form a hook, the other end of the flanges remaining straight. A guard member or lug extends from the web adjacent to and partly about the straight end of each flange to form a pocket for the reception of the hook of an adjacent member.

In the drawings, Figures 1, 2, 3, and 6 show various modifications embodying the above construction. Fig. 4 shows an elevation view of a wall composed of sections arranged as in Fig. 1, and Fig. 5 is an enlarged section of the beam employed in Fig. 1.

All the beams are rolled integral, and the web part 1 terminates at its ends in cross-flanges 2. These flanges in Figs. 1 and 5 are shown disposed at an angle to the web and parallel with each other. The end 3 of each flange terminates in a hook 4 to form a recess or pocket 5. The other end 6 of each flange remains straight, and a guard member or lug 7 extends from the web 1 adjacent to and about each straight end 6 of the flanges to form a pocket 8 for receiving the hook of an adjacent section, the recess 5 of this adjacent section receiving the end 6. In Figs. 1 and 5 these locking members at the ends of the web are reversed—that is, the hooks and guard members are at opposite sides of the web.

Fig. 2 shows the flanges 2 at right angles to the web, while Fig. 3 also shows the flanges at right angles to the web; but the hooked

ends thereof are on the same side and both guard members on the other side.

Fig. 6 shows the flanges inclined with respect to the web in an opposite direction to that shown in Figs. 1 and 5. In all these modifications of arrangement, however, the same locking principle prevails, each forming a very rigid clamping arrangement, which is very efficient in withstanding tensional strains, and particularly side or buckling strains. Furthermore, in all these arrangements, owing to the length and irregularity of the seams or joints between the sections, the built-up wall is proof against the passage thereby of moisture or quicksand or the like. All these forms are also very easily rolled integral, and consequently are comparatively inexpensive.

As other modifications besides those illustrated can be made without departing from the scope or spirit of my invention, I do not wish to be limited to the exact disclosure as shown; but,

Having broadly described my invention, I claim as new and desire to secure by Letters Patent—

1. A sheet-piling unit consisting of a web portion, a transverse flange at each end thereof, one end of each flange terminating in a hook, the opposite end of each flange remaining normal to engage in the recess of the hook of an adjacent section.

2. A sheet-piling unit consisting of a web portion, transverse parallel flanges at the ends thereof, one end of each flange terminating in a hook, the other end of each flange remaining normal to engage in the recess of the hook of an adjacent section, and a guard-lug adjacent to each normal end of the flanges and forming therewith a pocket for receiving the hook of an adjacent section.

3. A sheet-piling integral member consisting of a web, of flanges at the ends of the web extending across the end and at an angle thereto, said flanges being parallel and one end of each flange being extended to form a hook and the opposite end of each flange remaining normal to engage in the recess of the hook of an adjacent section.

4. A sheet-piling integral member consisting of a web, a flange at each end of the web extending across the end and at an angle thereto, one end of each flange being extend-

ed to form a hook, and the other end of each flange remaining normal to engage in the recess of the hook of an adjacent section, and a guard member or lug adjacent to each normal end of the flanges for forming therewith a pocket for receiving the hook of an adjacent section.

5. A sheet-piling section consisting of a web terminating at each end in a transverse flange, an end of each flange at opposite sides of the web terminating in a hook, and the other end of the flange remaining normal to engage in the recess of the hooks of adjacent sections.

6. A sheet-piling section consisting of a web terminating at each end in a transverse flange, an end of each flange at opposite sides of the web terminating in a hook, and the other end of the flange remaining normal to engage in the recess of the hooks of adjacent sections, and a guard member or lug extending from opposite sides of the web and adjacent to the normal flange end thereat for forming therewith pockets for receiving the hooks of the adjacent sections.

7. A sheet-piling section consisting of a web terminating at each end in a flange extending transversely thereof and at an angle thereto, one end of each flange at opposite sides of the

web terminating in a hook, the other end of each flange remaining normal for engaging in the recess of the hook of an adjacent section.

8. A sheet-piling section consisting of a web terminating at its ends in flanges extending transversely thereof and at an angle thereto, one end of each flange at opposite sides of the web terminating in a hook, the other end of each flange remaining normal for engaging in the recess of the hook of an adjacent section, and a guard member or lug extending from each side of the web adjacent to the normal flange end thereat and forming with said flange end a pocket for receiving the hook of the adjacent section.

9. A sheet-piling unit consisting of a web portion of uniform thickness, a flange extending across the web at each end thereof, one end of each flange terminating in a hook and the other end of each flange remaining normal to be engaged by the hook of an adjacent flange.

In witness whereof I hereunto subscribe my name this 21st day of April, A. D. 1905.

TRUMAN HILL.

Witnesses:

CHARLES J. SCHMIDT,
LEONARD W. NOVANDER.